

## REMARKS

Claims 1, 2, 6-8, 10-12 and 14 are amended herein. New Claims 15-19 are added herein. Claims 1-19 are pending. No new matter is added as a result of the claim amendments.

### Claim Objection

Claim 6 is objected to because of the informalities cited in the instant Office Action. Claim 6 is amended to correct the cited informalities.

### 112 Rejection

Claim 6 is rejected under 35 U.S.C. § 112, second paragraph. Claim 6 is amended to overcome the 35 U.S.C. § 112, second paragraph, rejection.

### 103 Rejections

Claims 1-2, 4-5, 7-9 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai (US 6,266,776) in view of Applicants' Admitted Prior Art (AAPA). The Applicants have reviewed the cited references and respectfully assert that Sakai and AAPA, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claims 1-2, 4-5, 7-9 and 12.

Independent Claim 1 recites that an embodiment of the present invention is directed to a method that comprises "preserving said internal context against loss due to removal of electrical power from said processor, said internal context preserved in a private memory accessible only by said processor and powered independently of said processor" (emphasis added). Claims 2 and 4-5 are dependent on Claim 1 and recite additional limitations.

Independent Claim 7 recites that an embodiment of the present invention is directed to a processing system that comprises "a power supply for supplying power separately to said CPU and said first and second memories, wherein said CPU, said first memory and said second memory each reside in separate power domains" (emphasis added). Claims 8-9 are dependent on Claim 7 and recite additional limitations.

Independent Claim 12 recites that an embodiment of the present invention is directed to a digital computer system that comprises "a private memory accessible only by said CPU; and a power supply, said power supply for supplying power to said CPU and said private memory independent of one another" (emphasis added).

Applicants respectfully submit that Sakai does not show or suggest the limitations cited above. Specifically, Applicants respectfully submit that Sakai does not show or suggest a memory that is only accessible by a processor or CPU and that is powered independently of or separately from the processor or CPU, nor does Sakai show or suggest a first memory, a second memory and a CPU each residing in separate power domains.

AAPA does not overcome the shortcomings of Sakai. AAPA, alone or in combination with Sakai, also does not show or suggest a memory that is only accessible by a processor or CPU and that is powered independently of or separately from the processor or CPU, nor does AAPA and Sakai (alone or in combination) show or suggest a first memory, a second memory and a CPU each

residing in separate power domains. Referring to Figures 1 and 3 of the instant application, AAPA (alone or in combination with Sakai) does not show or suggest a private memory 5 or an internal memory and cache 8 that are in power domains (P2 and P4, respectively) that are separate from the power domain (P1) of the CPU.

Therefore, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest the present claimed invention as recited by independent Claims 1, 7 and 12, and that these claims are in condition for allowance. As such, Applicants also respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claims 2 and 4-5 dependent on Claim 1, and in Claims 8-9 dependent on Claim 7, and that these claims are also in condition for allowance as being dependent on allowable base claims. Therefore, the Applicants respectfully assert that the rejection of Claims 1-2, 4-5, 7-9 and 12 under 35 U.S.C. § 103(a) is traversed.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai and AAPA, and further in view of Sasscer (US 4,523,206). The Applicants have reviewed the cited references and respectfully assert that Sakai, AAPA and Sasscer, alone or in combination, do not show or suggest the embodiment of the present invention recited in Claim 3.

Claim 3 is dependent on Claim 1. As discussed above, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest "preserving said internal context against loss due to removal of electrical power from said processor, said internal context preserved in a private memory

accessible only by said processor and powered independently of said processor"  
(emphasis added) as recited in Claim 1.

Sasscer does not overcome the shortcomings of Sakai and AAPA. Sasscer is understood as describing a cache memory 106 that is provided with a battery pack or uninterruptible power supply for maintaining power to the cache memory for a limited amount of time. First, Applicants respectfully submit that the cache memory 106 of Sasscer is analogous to the other memory 3 shown by Figures 1 and 3 of the instant application. Second, Applicants respectfully submit that there is no showing or suggestion in Sasscer that the cache memory 106 is a private memory accessible only by the processor, as recited in Claim 1. Third, Applicants respectfully submit that there is no showing or suggestion in Sasscer that the cache memory 106 is powered independently of the processor, as recited in Claim 1. Accordingly, Applicants respectfully submit that Sasscer, alone or in combination with Sakai and AAPA, does not show or suggest the present claimed invention as recited by Claim 1.

Therefore, Applicants respectfully submit that Sakai, AAPA and Sasscer, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claim 3 dependent on Claim 1, and that Claim 3 is in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the rejection of Claim 3 under 35 U.S.C. § 103(a) is traversed.

Claims 10-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai and AAPA and further in view of Tanenbaum ("Structured Computer

Organization"). The Applicants have reviewed the cited references and respectfully assert that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claims 10-11.

Independent Claim 10 recites that an embodiment of the present invention is directed to a processing system that comprises "a power supply for supplying power separately to said CPU and said first and second memories, wherein said CPU, said first memory and said second memory each reside in separate power domains" (emphasis added). Claim 11 is dependent on Claim 10.

Applicants respectfully submit that Sakai does not show or suggest the limitations cited above. Specifically, Applicants respectfully submit that Sakai does not show or suggest a first memory, a second memory and a CPU each residing in different power domains.

AAPA does not overcome the shortcomings of Sakai. AAPA, alone or in combination with Sakai, also does not show or suggest a first memory, a second memory and a CPU each residing in different power domains. Referring to Figures 1 and 3 of the instant application, AAPA (alone or in combination with Sakai) does not show or suggest a private memory 5 or an internal memory and cache 8 that are in power domains (P2 and P4, respectively) that are separate from the power domain (P1) of the CPU.

Tanenbaum does not overcome the shortcomings of Sakai and AAPA. Tanenbaum, alone or in combination with Sakai and AAPA, also does not show

or suggest a first memory, a second memory and a CPU each residing in different power domains.

Therefore, Applicants respectfully submit that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the present claimed invention as recited by independent Claim 10, and that Claim 10 is in condition for allowance. As such, Applicants also respectfully submit that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claim 11 dependent on Claim 10, and that Claim 11 is also in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the rejection of Claims 10-11 under 35 U.S.C. § 103(a) is traversed.

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai and AAPA, and further in view of Song et al. ("Song;" US 5,991,531). The Applicants have reviewed the cited references and respectfully assert that Sakai, AAPA and Song, alone or in combination, do not show or suggest the embodiment of the present invention recited in Claim 13.

Claim 13 is dependent on Claim 12. As discussed above, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest "a private memory accessible only by said CPU; and a power supply, said power supply for supplying power to said CPU and said private memory independent of one another" (emphasis added) as recited in Claim 12.

Song does not overcome the shortcomings of Sakai and AAPA. Specifically, Song (alone or in combination with Sakai and AAPA) does not show or suggest "a private memory accessible only by said CPU; and a power supply, said power supply for supplying power to said CPU and said private memory independent of one another" as recited in Claim 12.

Therefore, Applicants respectfully submit that Sakai, AAPA and Song, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claim 13 dependent on Claim 12, and that Claim 13 is in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the rejection of Claim 13 under 35 U.S.C. § 103(a) is traversed.

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai in view of Gilgen (US 6,182,231). The Applicants have reviewed the cited references and respectfully assert that Sakai and Gilgen, alone or in combination, do not show or suggest the embodiment of the present invention recited in Claim 14.

Applicants agree with the Examiner's statement that "Sakai does not teach intercepting an issued sleep instruction and determining if the issued instruction should be substituted with a different sleep instruction."

Applicants respectfully submit that Gilgen does not overcome the shortcomings of Sakai. Applicants respectfully submit that Gilgen, alone or in combination with Sakai, does not show or suggest "substituting for said first

instruction a second instruction to place said digital computer in said STR stage of sleep." The Examiner states that modifying a sleep instruction and substituting a sleep instruction are the same basic task. Applicants respectfully disagree. Modifying an element versus substituting a new element for an existing element are two distinct types of operations. Applicants respectfully submit that "modifying" and "substituting" are not equivalent terms, and as such Gilgen (alone or in combination with Sakai) does not show or suggest the present claimed invention.

Furthermore, Applicants understand Sakai to only describe progressing from one power supply state to another power supply state while in a sleep mode, and Gilgen to only describe changing the duration of a sleep mode. As such, Applicants respectfully submit that Gilgen, alone or in combination with Sakai, does not show or suggest a method in which "entry to said STR stage occurs bypassing said pre-STR stage in response to said first instruction and transparent to said power management program" as recited in Claim 14. In other words, Applicants respectfully assert that Sakai and Gilgen, alone or in combination, do not show or suggest entering a deeper mode of sleep in response to an instruction to enter a less deep mode of sleep, thus making the entry into the deeper mode transparent to the operating system.

Therefore, Applicants respectfully submit that Sakai and Gilgen, alone or in combination, do not show or suggest the present claimed invention as recited by independent Claim 14, and that Claim 14 is in condition for allowance. Accordingly, the Applicants respectfully assert that the rejection of Claim 14 under 35 U.S.C. § 103(a) is traversed.



## CONCLUSION

Based on the remarks and amendments presented above, Applicants request allowance of the present Application.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-14 (and new Claims 15-19) overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

Applicants have reviewed the references that were cited but not relied upon. Applicants respectfully assert that the present claimed invention overcomes these references: US 5,204,963; US 5,671,229; US 6,397,242; and US 6,405,320.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

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Respectfully submitted,  
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